



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/735,255	12/12/2003	Seppo Nissila	187-73	9796
23869	7590	12/14/2005	EXAMINER	
Hoffmann & Baron, LLP 6900 Jericho Turnpike Syosset, NY 11791			Mallari, Patricia C	
			ART UNIT	PAPER NUMBER
			3736	

DATE MAILED: 12/14/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/735,255	NISSILA	
	Examiner	Art Unit	
	Patricia C. Mallari	3736	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) Responsive to communication(s) filed on 02 November 2005.
 2a) This action is FINAL. 2b) This action is non-final.
 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) Claim(s) 1-21 is/are pending in the application.
 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
 5) Claim(s) 1-9 is/are allowed.
 6) Claim(s) 10,12 and 17-21 is/are rejected.
 7) Claim(s) 11 and 13-16 is/are objected to.
 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) The specification is objected to by the Examiner.
 10) The drawing(s) filed on 12 December 2003 is/are: a) accepted or b) objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) All b) Some * c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)	4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. _____
2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)	5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)
3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date <u>5/12/04, 1/29/04</u> .	6) <input type="checkbox"/> Other: _____

Response to Arguments

Applicant's arguments and affidavit, filed 11/2/05, with respect to the rejection of claims 1-21 under 35 U.S.C. 112, 1st paragraph have been fully considered and are persuasive. The rejection of claims 1-21 under 35 U.S.C. 112, 1st paragraph has been withdrawn.

Claim Objections

Claims 10 and 16 are objected to because of the following informalities:

On line 8 of claim 10, "the measurement time" should be replaced with "time spent measuring the heat beat intervals";

On line 9 of claim 10, "the music" should be replaced with "music";

On line 3 of claim 16, "the heart" should be replaced with "heart". Appropriate correction is required.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim 18 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 18 recites the limitation "means for generating from the encoded music a sound collage that can be stored in a storing means." Claim 10, upon which claim 18 depends, describes a "means for coding . . comprising means for selecting the rhythm for the music in the sound collage". However, neither claim 10 nor claim 18 recites,

"encoded music" as recited in claim 18. The only "music" previously introduced in claims 10 and 18 is the music in the sound collage. It is unclear how a sound collage can be generated from music that is already part of the sound collage. Additionally, the limitation in claim 18 meets the 3 prong analysis set forth in MPEP §2181, thereby invoking 35 U.S.C. 112, 6th paragraph. However, it is unclear what structure in the specification corresponds to the means for generating recited in claim 18.

Claim Rejections - 35 USC § 102/103

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 10, 12, and 17-21 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over US Patent No. 5,267,942 to Saperston. Saperston teaches an arrangement for coding heart rate information comprising a means for measuring a person's heart beat intervals or heart rate (col. 10, lines 23-27 of Saperston), means for packing the measured heart beat interval information (col. 10, lines 11-22 of Saperston), and means for coding at least a portion

of the packed heart beat interval information into a sound collage, the sound collage being shorter in duration than the measurement time, the coding means comprising means for selecting the rhythm (tempo) of the music in the sound collage based on the measured heart beat intervals or heart rate (col. 9, lines 49-66; col. 11, lines 9-37 of Saperston), the measurement time was 12 minutes and the duration of the sound collage was nine minutes. While Saperston fails to explicitly recite a means for storing the heart beat interval information, measuring the heart beat interval information and determining a heart rate from it for display are shown to be performed by a computer system, wherein, in order to manipulate acquired values and to display such values, the values must inherently first be stored in some sort of storage means. Therefore, the system of Saperston must inherently include a means for storing.

As to the means for encoding, the limitation meets the three-prong analysis set forth in MPEP § 2181, thereby invoking 35 U.S.C., 6th paragraph. The “means for coding” in claim 10 appears to correspond to the coding means in paragraph 31 of the specification which comprises “means 660 for providing the music with tempo on the basis of the measured heart beat intervals”. All further aspects of the coding means appear, as described in paragraph 31 of the specification to be optional. Saperston describes a means by which the tempo of music is provided based on heart beat intervals, or heart rate measured (col. 9, lines 53-66 of Saperston).

Regarding claim 12, the coding means comprises means for joining together digital sound packets that can be added to one another in temporal sequence and/or combined by summing at a given time instant (col. 9, lines 56-67 of Saperston), wherein

a MIDI recorder and any control for such recorder is such a means for joining together digital sound packets, as described.

Regarding claim 17, the applicants should note that the language presented in this claim is merely “intended use” language that cannot be relied upon to define over the prior art of record, since Saperston teaches all of the claimed structural limitations and their recited relationships. The system described by Saperston is certainly capable of measuring heart rate information during exercise.

Regarding claim 18, the MIDI recorder (col. 9, line 56-66 of Saperston) is considered to additionally be a means for generating a sound collage from encoded music, wherein the collage is capable of being stored in a storing means.

Regarding claim 19, the arrangement is a heart rate monitor (Col. 9, line 66-col. 10, line 27 of Saperston).

Regarding claim 20, the heart rate monitor comprises means for presenting the generated sound collage (col. 11, lines 6-9 of Saperston).

With further regard to claim 21, the headphones of Saperston are a piezo element, wherein “piezo” simply means pressure, and sound is played through the headphones, sound being a pressure wave.

Allowable Subject Matter

Claims 1-9 are allowed.

Claims 11 and 13-16 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is a statement of reasons for the indication of allowable subject matter:

Regarding claims 1-9 the prior art fails to teach or fairly suggest a method for coding heart rate information wherein the person's heart beat intervals are measured during a physical exercise, in combination with all of the other limitations of the claims. Saperston teaches an arrangement as described above, which description inherently discloses a method of using such an arrangement. However, Saperston lacks measuring the heart beat intervals during a physical exercise. In fact, the method of Saperston requires the person to relax during heart beat interval measurement (col. 11, lines 9-18 of Saperston). US Patent No. 6,572,511 to Volpe and US Patent No. 6,230,047 to McHugh both teach a method coding at least a portion of measured heart beat interval information such that the rhythm of the sound collage depends on the measured heart beat interval, largely as described in claim 1. However, neither McHugh nor Volpe teaches coding the information such that the duration of the sound collage is shorter than the time spent for measuring the heart beat intervals. There appears to be no motivation to combine Saperston with either Volpe or McHugh.

Regarding claims 11 and 13-16, the prior art of record fails to teach or fairly suggest an arrangement for coding heart rate information comprising a means for coding at least a portion of packed heart beat interval information into a sound collage, such that the sound collage is shorter in duration than the measurement time, the coding means comprising means for selecting a musical genre of the sound collage to be used in the coding, means for changing sound scale based on the length of the heart

beat intervals or duration of the heart beat interval measurement, means for changing the rhythmical complexity of the music base don the variation rate of the heart beat intervals, or means for changing the volume in the sound collage based on the heart beat intervals, in combination with all of the other limitations of the claims. Regarding claim 16, US Patent No. 6,572,511 to Volpe teaches means for changing the volume of the music in the sound collage based on measured heart beat intervals (col. 2, lines 44-65 of Volpe). However, there appears to be no motivation to combine Saperston with Volpe.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

US Patent No. 5,986,200 to Curtin.

WIPO Publication No. WO 03/005339 to Baron et al.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Patricia C. Mallari whose telephone number is (571) 272-4729. The examiner can normally be reached on Monday-Friday 10:00 am-6:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Max Hindenburg can be reached on (571) 272-4726. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 3736

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Patricia Mallari
Patricia Mallari
Patent Examiner
Art Unit 3736

Robert L. Nasser Jr.

ROBERT L. NASSER
PATENT EXAMINER